

136th Meeting of the South Carolina Aquatic Plant Management Council

Attendance:

Council Members: Chris Page, Bill Marshall, Tammy Lognion, Casey Moorer, Adam Leaphart, Stacey Scherman, Sara Carper, Chad Altman, Willie Simmons

Guests: Julie Holling, Matthew Puckhaber, Brian Lynch, Carl Bussells, Allan Stack, Ernie Guerry, Judson Riser, Chad Holbrook, Lee Hendren, Bob Perry, John Kinsey, Matt Howle, Andrew Brainard, and two other unidentified guests

Location: WebEx Video Conference

Call to Order: 10:05 a.m. 1/20/2021

Minutes:

Chairman Chris Page called to order the 136th meeting of the South Carolina (SC) Aquatic Plant Management Council (Council). He has been around a lot longer than some of us have. He told the Council members we are going to try a couple of different things. We recorded the votes last time physically by yea or nay. He is going to try and use the poll questions this time and when we get to that point, he will send a poll question out, and we will have a few minutes to answer it. You just click on yea or nay. He guesses he could put an abstain on there, but we will go with yea or nay. If you want to abstain, you just do not vote. He asked if that made sense. The chat is active, also. If you want to chat with us off camera or off microphone, you can send a note. If we forget something or mess something up, send a note and we will fix it. These meetings on-line are a difficult, but necessary step we must take. They are a little harder to manage regarding the flow of the meetings.

Mr. Page said from what he is looking at in the plan, we have not really changed anything. We are still sticking to our guns on the 5-year plan on Santee Cooper (S-C). We will do a brief overview plan later. We have not changed anything else anywhere on those major water bodies like Murray and those places with the carp. Those seem to be effective numbers. The numbers are still going down slightly on S-C. We will talk about those later.

Mr. Page stated the second thing is our bylaws, which we run by. It says we can vote via email and different ways or phone-ins, but he made a little change and we will get to that when we get to the bylaw changes. We would need to adopt those bylaws changes, if you agree with them. He just simply put one line in there. We will talk about that, too.

Mr. Page does not think this meeting is going to be very intense, because we had all our fisheries stuff last time. Ms. Moorer may briefly want to touch on anything that may have been updated in the digital mapping. He asked Ms. Moorer to remember that.

Mr. Page called for comments and shared the agenda to the attendees. He asked if anyone, even council members, had any comments about anything. He would accept comments at this time. There were no comments. He reminded everyone that this meeting is only to approve the draft plan for public review. Ms. Moorer asked if he was looking for comments on the actual plan or just comments in general. Mr. Page said comments in general. It is just a comment section to give people free rein to speak their peace. Normally, we have some constituents here or in the regular meetings that have something to note and get their thoughts out to us early.

Mr. Page said there being no comments, we will move on to the minutes. The minutes were a little different this time because of the meeting. The WebEx system has a way to do transcripts. Since there was such a variety of people and such a variety of inputs from different types of microphones and volumes, it could not pick up on most of that stuff and it kicked out of error message saying it could not provide a transcript because it could not delineate among people. Ms. Holling and Mr. Puckhaber had to go through that and do them, basically transcribe them themselves. They had the help of a video to do that this time, instead of just a recording, which might have been a little easier for them. He noticed that on the video we get to talking and we make errors or make misstatements sometimes, and you do not pick up on it quite as fast that way. He asked the Council to take a few minutes to review the minutes he sent them via email. He would give them a second or two to look at them and he would entertain a motion at that point.

Ms. Holling noted that Ms. Moorer sent her some minor adjustments. She specifically asked Ms. Moorer to look over to her stuff, because we were having so much trouble hearing her. Ms. Holling pulled up the file and shared it to show the adjustments. The first one was on page one where Ms. Moorer said 'public utility.' That was supposed to be 'private.' Instead of changing it, because 'public' is what she said, Ms. Holling would like to add in an editor's note with the correction. She did that for Mr. Page in another spot. On page three, there was a missing 'not,' which was something that we could not hear.

Mr. Page said he would entertain a motion anytime anyone was ready to make a motion to approve the minutes. Ms. Moorer made a motion to accept the minutes as written with that corrected errors as noted by Ms. Holling. Mr. Marshall seconded the motion. Mr. Page said he would send a poll question, if he could it to work. He was unable to get it to work. He said he would do a roll call vote and go through the names. He asked, when he calls your name, please say your name and how you vote. He started with Mr. Altman and moved through the rest of the Council. The motion carried unanimously. He hoped the poll would work next time. He tried it two or three times before the meeting with no problems.

Mr. Page pulled up the bylaw changes up, so you could review them while he got Mr. Simmons situated and in the meeting. He apologized for that. On the bylaws, the changes are in red on the page to your right. It says in there in places already that we can vote by mail and do all

kinds of other stuff, but it never says anything in there about virtual meetings or electronic meetings. The simplest thing he could do, was in the meeting section, he put in one sentence that said meetings can be traditional face to face or virtual electronic meetings and voting requirements must be adhered to. If that is not sufficient for you, if you want to change a little bit, we can do that, but we need to approve that to say we have an official meeting. He does not think he knows of anybody who has questioned that anyway. It says all the same stuff. He sent that stuff to you in your packet, too, he believes. Ms. Holling said there appeared to be a box about saving the poll results over the portion of the bylaws to be changed. Mr. Page highlighted the change and asked if that was clear enough. Mr. Marshall moved to accept the proposed change to the bylaws. Ms. Lognion seconded the motion. Mr. Page said there is a motion and a second. He asked if there was any discussion about it. He tried doing a poll again and it worked this time. He could see votes coming in. He noted that he set it up to spit out a report that tells him exactly who voted for what. He will see about attaching that information to the minutes.

Ms. Moorer noted that she does not have a poll or chat option. She can only message Mr. Page directly. She just sent her vote by message. Mr. Page said we will add that to it, because emails and all that stuff, or even phone calls, have always been an acceptable form of messaging. Ms. Moorer said she is logged in using the WebEx Teams app that we use here at S-C. She thinks that may be why she does not have the regular chat option. Mr. Page said that could be. All these things have their own little built-in security protocols that are somewhat difficult to deal with at times.

Mr. Page had a brief conversation with Mr. Perry regarding electronic meetings while waiting on the poll time to expire. Mr. Page hoped, towards the end of this year, we are back in face to face meetings. He knows we have been lucky with staff. We have been able to have some interaction in places because we meet somewhere by the road, and we get out and talk to each other. That helps a lot.

Mr. Page said he was going to go ahead and close that poll. He hoped everyone had voted. He shared the results of the poll. It listed everybody. He noted that the only ones he is interested in are the Council members for the polls. You all answered the first one, too. Thank you very much. It looks like the motion carried.

Mr. Page moved on into the approval of the draft of the management plan to post for public comments. This does not require a two-thirds vote like the final plan does. It only requires a majority to be able to post it for review. Hopefully, there will not be many changes to it. He thinks there are a couple of places where we are probably going to have to make some changes. He pulled it up. He asked if anybody had any concerns about any sections in there we might need to look at.

Ms. Moorer said she emailed Mr. Page and Ms. Holling a copy with the S-C comments right when the meeting started. The only thing that we had was a couple comments and some edits to add Metsulfuron-methyl and salvinia weevils. Our edits were on pages 56-60, and she

emailed those to both of you. Mr. Page asked Ms. Holling if she had put those changes in the document. Ms. Moorer said she just emailed those changes when the meeting started this morning. Ms. Holling said it has not been inserted. She has it pulled up, if he would like her to share it. Mr. Page asked her to do so. Ms. Holling said she would scroll through the changes. They included changing 'filamentous algae (Lyngbya)' to 'algae,' adding information about Metsulfuron-methyl and salvinia weevils and adding the acres of salvinia to be treated.

Mr. Page asked the Council members if he needed to email that to them or did you see it on the document. This is just stuff going out for public review, so we will have a chance to tweak it and change it before we approve the plan in the end, anyway. He asked if anybody had any comments about that. There were none.

Mr. Page shared the plan so we could go over some of the highlights we have. You just saw Ms. Moorer's changes. If we need to, we can send that out and let you look over it a little closer and ask for a mail vote by the end of the day to approve those changes. If that is one of suggestions we need to do, we can do it that way. He had shared the document with you. You have got it in your hand. Let us see changes we made. He does not know of any changes we really made in there.

Mr. Page noted he was going to pull up all his favorites, starting with Lake Murray. Lake Murray kind of stayed the same. We are looking at the same number of grass carp in there. Maintenance carp stocking of 2,000. He thinks we did 1,700 last year. And we talked about doing the 2,000. That may be a change. He cannot remember what we did last year. All these documents are starting to run together. He is trying to maintain that 1 to 6 surface acre stocking rate. It appears we are kind of there on Lake Murray. We have other vegetation still on Lake Murray that has been problematic. Next year we will probably ask, as an agency, for Murray to do another drawdown, which they are supposed to be doing by their Federal Energy Regulatory Commission (FERC) license every 3 years. He thinks next year it will be 3 years since the last drawdown. That helps some of those native plant species right up along the shoreline significantly thrive. Things like the button bush and similar things, it helps them when they draw the lake down. It also hurts some of the other weedy plants that come up in there like primrose, alligator weed, bushy naiads and things like that, which people seem to think is more of a nuisance. We have not gotten to the stage yet where we see any need to make any significant chemical applications out there. We will keep checking it and trying to go through it that way.

Mr. Page scrolled to Lake Greenwood which was the same. Two years ago, we had a pretty significant infestation of *Hydrilla* come in, along with some control we did on some native species that were causing problems in a couple of coves. We are down to about 300 grass carp in Lake Greenwood. We are in the 1:5 or 1:6-acre ratio in there on those. We did leave in the treatment methods in case we had to go in and do some spot treating. Lake Greenwood is a lot like S-C. They do their own work. We talk to Julie Davis up there, the manager, quite a bit to see what is going on and we go help them survey and do things to help them, but she has got her own

budget. She makes it through on her budget except when she has some major problems and then we come in and help them.

Mr. Page asked if there was anything on the plan that the Council had concern with from your copies. Mr. Marshall said he had a question. He noticed that the list of species, problem plants, in many places seemed to expand. He was guessing that is an update. The previous plan showed the primary problem plants and now you have expanded it based on an update of all the plants that you deal with in those different places. Mr. Page said that was true. We had a situation last year where we had some public comments, well not public comments, but comments to us about having certain things in there, and certain things not being in there, and we treat certain areas that had certain species of native plants. That was always the discussion, should we list the native plants that we do treat, because some natives are problematic in situations or should we not. We waffled back and forth on that and we decide to put a more significant list of those plants in there. If we are going to affect it in some way or fashion, or target it in some way or fashion, it is probably listed now. We can take it back to the big problem plants if needed.

Mr. Page noted at Lake Greenwood, slender naiad is one of those species, along with *Vallisneria* (val or eel grass). It is one of those species that we love to have in the waterbody, but it can be problematic in certain coves where it cuts the whole cove off. Thanks to S-C, Ms. Moorer and those guys, either last year or the year before, instead of treating val, they and some Department of Natural Resource (DNR) folks from the upstate, went out and harvested it. They dug it up and transplanted it to the S-C system. He thinks they also put some in Hartwell. It is not suggested that just anybody do that. He felt confident with Ms. Moorer and those guys going through it, trying to figure out if it had *Hydrilla* tubers mixed in with it. They did a very good job of filtering that and just taking val with them and not any *Hydrilla*. Common people could go out and dig it up and just take a whole root wad and they may have *Hydrilla* and *Vallisneria* and four or five other species. Ms. Moorer and her staff did quite a good job of recognizing what was there and kind of culling the harvest and doing the right thing. He asked if there were any other comments or questions. There were none.

Mr. Page said it is the same old same old stuff. He called for a motion to approve. Ms. Moorer made a motion to approve the draft with the edits she sent in. Ms. Lognion seconded the motion. Mr. Page said he had a motion and a second. He asked if there was any discussion about any of those motions or the plan itself. There was no discussion, so he put the poll out and called for a vote.

While waiting for the votes to come in, Mr. Page noted to the Council members that are newer, this is the same old stuff we do here year in and year out. It gets kind of monotonous and boring sometimes. Sometimes we have some dicey spots, but generally, it is this. We are trying to look at things and trying to make decisions. We have made some significant changes over the years and we are settling into a timeline. We appreciate what you are doing, because we are trying to get an idea of something and try new science to make things work. Since we have been

doing, for the last 5 years, the stockings on S-C the same way, the indication is that what we are doing seems to be working very well and there is no need to make any drastic changes at the moment. After this year, we are going to have another decision to make, since the 5-years that we put in as our experimental period will be over. We will decide next year whether to continue on the same track or to go to more of a maintenance stocking situation in there, to level that curve back out. It is still going down slightly, based on the numbers we have. That stuff is difficult to look at when you are in a regular meeting and we have got it on a big screen. These meetings make it more difficult to look at. Hopefully, we will be back in the office next year to be able to do the meetings that way. It is a whole different way to look at it when you are trying to look at it on a small screen and share it with people and get comments at the same time.

Mr. Page asked Ms. Moorer if she had emailed him again. Ms. Moorer said she sent him a message and her vote was yea. Mr. Page noted we can also vote simply by stating your name and your vote so it is recorded on the video or the audio part of the meeting. Ms. Moorer stated her name and 'yea.' Ms. Carper stated her name and 'yea.' Mr. Page said when calling a roll call vote he feels like he is up in the Senate or somewhere. He said he was going to let the time run out on the poll. He appreciated everyone's patience with all the technical issues we are having. He apologized. He thought we had it straight. We tried it 2 or 3 times, and it worked very well. He asked Mr. Simmons if all his meetings online this fun. Mr. Simmons said just about. We have had a bunch. As you know, all of our meetings have been online. Mr. Page said he knew but thought you had been in that other system. Mr. Simmons said they have been using Teams and it has been a lot easier.

Mr. Page gave the background on that. We use Teams as an agency and other agencies, he thinks are using Teams. Our agency refuses to open up the port to allow agencies to interact with each other that way. They view it as a security breach.

Mr. Page posted the poll results. You should be able to see who voted. The vote passed unanimously. That included two mail-in votes from Ms. Moorer and Ms. Carper, who both voted yea.

Mr. Page moved back to the agenda. The approval of the draft plan is done, unanimously, to post for public comments. He will get that stuff out there. Hopefully, he may have it out there by tomorrow. Once he gets it out there for 30 days of viewing for the public, he will determine the end date. Then he will send you another email about dates for the next meeting. He would anticipate that for the next meeting, with the comments, we may have more public attendance. He has tried to give them access to the meetings. He sends the details out every time we have a meeting through the DNR web server. It sends out the public blast and it will appear everywhere. He asked if there was any unfinished business that the Council had for this meeting or for any other prior meetings. Ms. Moorer asked if he wanted her to share the ReMetrix hyperspectral analysis final results. Mr. Page said yes and gave the floor to Ms. Moorer.

Ms. Moorer shared her screen and said this is very similar to the presentation that she gave at the last meeting, but it does have our updated numbers from the ReMetrix satellite hyperspectral analysis for our vegetation on Lake Moultrie and Lake Marion. This is just an update or a recap of what we treated during 2020. We had 3,200 acres of invasives treated this year, and 80 acres in our residential areas. She broke that out just to show that the majority of our program is focused on invasive species management or control. In the residential areas, we are treating some natives. You will see *Cabomba*, milfoil, pondweed, water willow, and duckweed as well. Those species are only treated if they are impeding access for our commercial or residential lease holders. Last year, in 2019, we treated 1,400 acres of invasives, and in 2020 we went up to 3,200.

Ms. Moorer moved on to the next slide, which covers what was mapped using the satellite hyperspectral analysis through ReMetrix. We had 1,900 acres of total invasives mapped. Last year, we went up by about 250 acres. She wanted to make one note on this satellite hyperspectral analysis. These numbers that we are looking at right now for invasive species and for our native species are just what was captured from the hyperspectral analysis. This does not include any boat surveys of additional acreage. We did do boat surveys for ground truthing to shore up the signature received by those different species. Our intention in 2021 is to have our contractor from ReMetrix come down, spend a week with us and do a little bit more boat surveying where he can capture acreage to add. Pretty much all these numbers stayed close. Crested floating heart, in 2019 we had about 780 acres. We are down to 700 or so. Giant salvinia took a jump there. We mapped 279 in 2019. This year we mapped 574, but remember we treated almost 2,700 acres of giant salvinia this year.

Ms. Moorer noted for our native species that we mapped a total of 21,000 acres. Last year, in 2019, we mapped right under 23,000 acres of native species. We did not include algae this year. Under native submersed, we have *Cabomba*, *Bacopa*, *Chara*, coontail, naiads, and pondweeds. She broke out eel grass out. Eel grass is also a submersed species, but we talk a lot about eel grass, so she wanted to pull that out. From 2019 to 2020, we did see an increase in eel grass, a couple hundred acres. We did pull algae out this year, because our contractor did not decipher between *Lyngbya* and other species. She just did not feel comfortable leaving *Lyngbya* in there because it is an invasive species. We can argue benefits or no benefits, but we did pull that out and it was about a 1000-acre difference. That is really where we are seeing the main difference between 2019 and 2020. We are at 14% native vegetation mapped, using just the hyperspectral. She reminded everyone that this is just mapped from satellite hyperspectral. This is our second year doing it via satellite. We are still tweaking some things. She feels like having our contractor come and spend a week or two with us in 2021 season will give us a better and a little bit more in-depth survey.

Ms. Moorer said the next few slides are some pictures that she shared at the last meeting with the Council. She wanted to keep these in here just in case we had anybody from the public that attended this meeting that did not attend the meeting we had in December of 2020. And these slides, or these pictures were taken throughout our season and you will see some of them

are summertime and some are wintertime. On the left is a good stand of val. We have some pondweed on the right. The picture on the left in this next slide is Mr. Guerry and Mr. Stack. It is cooler weather there, but this was an area that we treated for *Hydrilla* using ProcellaCOR. What they have on the rake, right there is some good healthy coontail. We wanted to share this picture with everybody to show that we can treat *Hydrilla* without damaging our natives using selective herbicides. The picture on the right, she just likes because it shows how large American lotus pads can get compared to Mr. Holbrook and Mr. Riser. Here is a shot of some native emergent pickleweed. A shot of some of the *Hydrilla* that we found mixed in with some val. We are finding it mixed in here and there. We had a few large stands of *Hydrilla* that we did treat this year using ProcellaCOR. We have another area that we are going to be targeting in the 2021 season. She will talk about that in just a second on another one of our other slides.

Ms. Moorer showed a couple shots that Mr. Simmons might appreciate. This is in Hickory Top Wildlife Management Area (WMA), where we treated giant salvinia. A good shot of how thick it can get. Actually, on the right with the mud motor was from Hickory Top. On the left, she believes is from Beetree Lake on upper Lake Marion. Mr. Simmons said that looks good. We appreciate that. He noticed it has been kind of growing with a purpose over there. Ms. Moorer said it definitely is. It has taken off. We hit a couple areas in Hickory Top this year by mud boat. We did some fluridone work in there. We had to bump it twice just to keep the concentration up. When we had the helicopter here, we went back in with a mix that was targeting giant cut grass to open up some of those pockets for waterfowl over there, as we had done several years ago when we did the joint cut grass work with DNR. Giant salvinia had moved in. The mix that we used to target the cut grass had a high enough glyphosate concentration that it took out any lingering *Salvinia* that was not affected by the fluridone or pushed in there after the fluridone treatment. We will keep an eye on it going forward. It is a tough spot to get to. We cannot get to it by airboat because the trees are so close together. We have to get in there by mud motor.

Ms. Moorer showed a map of the *Hydrilla* polygons from the hyperspectral analysis. We had a total of 80 acres that was picked up on hyperspectral. We treated 155 this year. Something that she kind of found interesting is the areas that we treated over at Taw Caw, the hyperspectral did not even pick up. It could be that was because we had treated before the analysis. One area that we are going to be targeting next year is just below the I-95 bridge on upper Marion. There is an area called Monkey Bay that has topped out *Hydrilla* and it has been that way for several years. We cannot get grass carp in there to it. She would like to stock some grass carp right in there. It is connected to the lake and it passes under, she thinks, the US 301 bridge up there. It is difficult to get to. It surrounded by the refuge, private property, and a county landfill convenience center. We are going to try and get in there this year with a kayak or canoe and drop some fluridone in there and keep a concentration up. That did not show up either on hyperspectral. She really feels like the reason for that is because that area has a lot of emergent and pads covering the surface of the water. That may have been blocking that signature from picking up a submersed species. We had a lot of primrose and alligatorweed growing in there. We had a lot of fragrant water lilies also in that area. Those pads are covering it. That is one of

the challenges that we have. If you have cloud cover, tree canopy or emergent vegetation it is just not picking up that *Hydrilla* signature. It is picking up some other species.

Ms. Moorer moved to a map of all the native submersed aquatic vegetation (SAV) together. This includes eel grass, pondweeds, naiads, milfoil, and *Cabomba*. She thought it was a good shot showing the distribution across the system. What she would really like to see eventually is all this color above the I-95 bridge. We have challenges above the I-95 bridge when it comes to water quality. That is where most of our inflows come into the system. We are often dealing with high turbidity and high inflows up there. We do have a couple of stands of eel grass coming in up there. She noted that Mr. Page talked about the val project that we did two years ago where we moved eel grass from Lake Greenwood to our system. In 2020, we continued that project, but we focused on water shield. We did a couple of sites on Lake Moultrie and a couple of sites on Lake Marion. She updated the Council on that at the previous meeting. If anybody has any questions about that, she would be glad to share that presentation with you or share the information on how the watershed is doing and the locations of the transplants. That was all she had. If anybody has any questions, she would be happy to answer or email you. She also sent this presentation to Ms. Holling. She added a couple of notes she added early this morning, so she can resend the presentation if needed.

Mr. Page thanked Ms. Moorer. Those were good numbers. To recap what you said, it is looking like we have about 14% native and good stuff out there. The *Hydrilla* does not appear to have increased that much, although you treated a little bit more. The ProcellaCOR has been a very good tool to have. Being able to selectively treat and leave some of the native species in there is good. He added that we treated Stoney Bay (Editor's note: this is part of Sandy Beach WMA) down in Lake Moultrie. We are trying to open it up under direction of our local biologist, who wants to open it up a little more for waterfowl. He also had a phone call recently with the SC Waterfowl Association representatives, who are looking to do more work in some of the areas that we had opened up before. When he was speaking to them, he told them we needed to get on the phone with Ms. Moorer and let her tell you exactly what she has done and do some touch up on those areas. He knows she did not just walk away from them and she has been doing a significant amount of work on that. He told Ms. Moorer that is something we are going to have to do. Buford Mabry is the one that called him yesterday. Mr. Mabry wanted to sit down with us sometime in the future and see what they could do. They potentially have some resources they want to give you to do that or give it to DNR to distribute to you or whatever they want to do. Mr. Page could not tell Mr. Mabry exactly where you had done in maintenance work on top of the helicopter work we have done, because he does not have all those maps. You have all that data. He asked Ms. Moorer to think about that. He will call her next week, and we can compile all that stuff and get with Mr. Mabry to do that. We are going in the right direction on S-C, he thinks. We have not had a lot of comments about what we are doing except for carp work. Some people are just dead set against grass carp. He thinks, by doing the scientific studies we have been doing, we may have a better argument than we have had in the past. They have not had to deal with a stocking of two or three hundred thousand fish at one time, which is not something we ever want to do again. If it ever does happen again like that, knock on wood, he will probably

be retired. Ms. Moorner and Ms. Holling will be having to deal with that. He does not think he will ever see that large influx of grass carp. Ms. Moorner said that might force her into early retirement if we have to do that again. She does not want to see any large stockings like that again. Hopefully, we can avoid it.

Mr. Page thanked her again for the presentation. He asked if there was any other unfinished business anybody else wanted to discuss, any new business, or anything new to bring up for Council. No one brought up any new business. He checked his text and emails to see if someone was talking to him. He said there was no new business. He appreciated everyone taking time out of their day to do this. He thanked everyone.

Mr. Page said if there is no other business, he would be open for a motion to adjourn. Ms. Moorner made a motion to adjourn. Mr. Marshall seconded the motion. Mr. Page called for a vote, which passed unanimously. Mr. Page adjourned the meeting at 11:10 a.m.